

**ABSTRACT OF THE DISCLOSURE**

The present invention relates to a method for identifying a non-competitive peptide, which inhibits the activity of a cytokine receptor. This method includes the steps of selecting a candidate peptide containing from about 7 to about 20 amino acids derived from a flexible region of a cytokine receptor, and determining the ability of the peptide to inhibit or promote the oligomerization and/or activation of the receptor by measuring an activity of the receptor in the absence or the presence of the candidate peptide, wherein the non-competitive peptide is selected when the activity of the receptor is measurably lower in the presence of the peptide as compared to in the absence of the peptide so identified. This invention also provides agonists of cytokine receptor activity. Pharmaceutical compositions that comprise the identified peptides are disclosed. Also disclosed are methods for treating patients with a disease or condition associated with abnormal cytokine receptor mediated function or activity such as inflammatory, autoimmune and vascular diseases.